

Application No: 10/676,522
Attorney Docket: 1-24391

AMENDMENTS TO THE CLAIMS

Please amend the claims, without prejudice or disclaimer, and add the new claims as presented below.

1. (currently amended) A ~~personal mobility vehicle~~ power wheelchair comprising a control system for controlling functions of the wheelchair in response to command signals from a user, the control system having a menu structure that is customizable so that commonly used portions of the menu structure can be grouped together, avoiding the need to frequently navigate through seldom-used portions of the menu structure.

2. (currently amended) A power wheelchair comprising:
a control system for controlling the operation of the wheelchair; and
a display for ~~an~~ the electronic control system ~~for a personal mobility vehicle,~~
the display having a ~~customized~~ customizable menu structure having one or more menu selection items that are unique to a particular user of the ~~personal mobility vehicle~~ wheelchair.

3. (currently amended) The ~~display~~ wheelchair of claim 2, wherein the ~~customized~~ customizable menu structure has only menu selection items which the ~~vehicle~~ wheelchair user intends to use.

4. (currently amended) The ~~display~~ wheelchair of claim 2, wherein the ~~customized~~ customizable menu structure has menu selection items which are selectively in the form of text, icons, or a combination thereof.

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5. (currently amended) The ~~display~~ wheelchair of claim 2, wherein the ~~customized~~ customizable menu structure has menu selection items which are identified by menu labels having content that is associated with a particular action to be performed by selecting the menu selection item, and wherein the menu labels are ~~customized~~ customizable so that the action is easily identified according to preferences of the user.

6. (currently amended) The ~~display~~ wheelchair of claim 2, wherein the display, in addition to having a ~~customized~~ customizable menu structure, has a standard ~~non-~~ non-customizable menu selection item.

7. (cancelled)

8. (currently amended) The ~~display~~ wheelchair of claim 7 2, further comprising a connector for attaching an external device in the form of a personal computer ~~connected to the connector, wherein the personal computer that~~ includes an application capable of changing the ~~customized~~ customizable menu structure.

9. (currently amended) The ~~display~~ wheelchair of claim 7 2, further comprising a connector for attaching an external device in the form of a handheld device ~~connected to the connector, wherein the handheld device that~~ includes an application capable of changing the ~~customized~~ customizable menu structure.

10. (cancelled)

11. (currently amended) The ~~vehicle~~ wheelchair of claim 10 2, further comprising at least one wheelchair component that is controlled by the controller, the customized menu structure being customizable to include a menu selection item for controlling the wheelchair component in accordance with the user's preferences.

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12. (currently amended) The ~~vehicle~~ wheelchair of claim 11, wherein the at least one component is one or more of either a drive wheel motor, ~~an~~ a seat actuator, a legrest actuator, or an environmental control module.

13. (currently amended) The ~~vehicle~~ wheelchair of claim 11, wherein the at least one component includes one or more actuators and one or more environmental control modules and the customized menu structure is customizable to include a menu selection item for each one of the actuators and each one of the control modules in accordance with the user's preferences.

14-19. (cancelled)

20. (currently amended) A method for customizing a menu structure of a ~~personal-mobility vehicle~~ power wheelchair for a particular user, wherein the user has one or more operation preferences, comprising the steps of:

a) providing a ~~personal-mobility vehicle~~ power wheelchair having a display for displaying a menu structure, an input device, and a controller for controlling operation of the ~~vehicle~~ wheelchair in accordance with input from the user via the input device; and

b) creating a menu structure to be displayed on the display, wherein the menu structure includes one or more menu selection items associated with the one or more operation preferences of the user, the controller controlling the operation of the ~~vehicle~~ wheelchair according to the menu selection items selected by the user via the input device.

21. (currently amended) The method of claim 20, wherein the creating step includes the step of creating one or more menu selection items for one or more ~~vehicle~~ wheelchair components.

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22. (currently amended) The method of claim 21, wherein the one or more ~~vehicle~~ wheelchair components are one or more motors for driving one or more drive wheels and the creating step includes the step of creating one or more menu selection items for controlling the one or more motors according to the menu selection items selected by the input device.

23. (currently amended) The method of claim 21, wherein the one or more ~~vehicle~~ wheelchair components are one or more actuators and the creating step includes the step of creating one or more menu selection items for controlling the one or more actuators according to the menu selection items selected by the input device.

24. (currently amended) The method of claim 21, wherein the one or more ~~vehicle~~ wheelchair components are one or more environmental control modules and the creating step includes the step of creating one or more menu selection items for controlling the one or more environmental control module according to the menu selection items selected by the input device.

25. (currently amended) The method of claim 21, wherein the one or more ~~vehicle~~ wheelchair components include one or more motors, actuators, environmental control modules, or a combination thereof and the creating step includes the step of creating one or more menu selection items for each one of the motors, actuators, environmental control modules, or combination thereof according to the menu selection items selected by the input device.

26. (original) The method of claim 20, wherein the creating step includes the step of creating a customized menu structure having one or more menu selection items which are in the form of text, icons, or a combination thereof.

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27. (original) The method of claim 20, further comprising the step of providing a standard menu selection item that, when selected, opens a standard non-customized menu structure.

28. (currently amended) The method of claim 20, further comprising the step of changing the customized menu structure with an external device connected to the ~~vehicle~~ wheelchair, wherein the external device is a personal computer having an application capable of changing the customized menu structure.

29. (currently amended) The method of claim 20, further comprising the step of changing the customized menu structure with an external device connected to the ~~vehicle~~ wheelchair, wherein the external device is a handheld device having an application capable of changing the customized menu structure.

30. (currently amended) A method for customizing a ~~personal mobility vehicle~~ wheelchair control system menu, comprising the steps of:

- a) providing a menu;
- b) providing a menu selection item in the menu, wherein the menu selection item is ~~automized~~ customized for the user of the ~~vehicle~~ wheelchair;
- c) assigning an action message to the menu selection item; and
- d) directing the action message to a target.

31. (currently amended) A power wheelchair comprising a programmable menu structure for a personal mobility vehicle, ~~the menu having a structure with an ability to~~ that can be rearranged according to preferences of a user.

32. (currently amended) The ~~menu structure~~ wheelchair claim 31, further comprising one or more shortcuts that point to fixed menu items.

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33. (currently amended) The ~~menu structure~~ wheelchair of claim 31, further comprising a display that is adapted to be attached to the menu structure for programming the menu structure.

34. (currently amended) The ~~menu structure~~ wheelchair of claim 33, wherein the display mounts on the ~~vehicle~~ wheelchair.

35. (currently amended) The ~~menu structure~~ wheelchair of claim 33, wherein the display is a component of a handheld programmer.

36. (currently amended) The ~~menu structure~~ wheelchair of claim 33, wherein the display is a component of a personal computer programming station.

37. (currently amended) The ~~menu structure~~ wheelchair of claim 31, wherein the menu structure has one or more menu selection items that are labeled with customizable text, icons, or a combination thereof.

38. (currently amended) The ~~menu structure~~ wheelchair of claim 31, wherein the menu structure has one or more menu selection items and wherein functions are programmably assigned to the menu selection items.

39. (currently amended) The ~~menu structure~~ wheelchair of claim 38, wherein the menu selection items are labeled with customizable text, icons, or a combination thereof.

40. (currently amended) A power wheelchair comprising display for an electronic control system ~~for a personal mobility vehicle, the display having one or more menu selection items that are labeled with customizable text, icons, or a combination thereof.~~

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41. (currently amended) The ~~display~~ wheelchair of claim 40, wherein the menu selection items include menu labels in the form of text that is manually entered into the label.

42. (currently amended) The ~~display~~ wheelchair of claim 40, wherein the menu selection items include menu labels selected from a list of text labels.

43. (currently amended) The ~~display~~ wheelchair of claim 42, wherein the menu labels are selected from the list of text labels by dragging the text labels from the list to a location where the menu selection items appear.

44. (currently amended) The ~~display~~ wheelchair of claim 40, wherein the icons are selected from a group available icons.

45. (currently amended) The ~~display~~ wheelchair of claim 40, wherein the icons are selected from available icons by dragging the icons to a location where the menu selection items appear.

46. (cancelled)

47. (currently amended) The ~~display~~ wheelchair of claim 40, wherein functions are programmably assigned to the menu selection items.

48. (currently amended) The ~~display~~ wheelchair of claim 40, wherein functions are pre-assigned to the menu selection items.

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49. (currently amended) A power wheelchair comprising:

a control system; and

a menu for a personal mobility vehicle the control system, the menu comprising menu items having functions programmably assigned to the menu items.

50. (new) A power wheelchair comprising:

one or more modules, including one or more motor control modules for controlling wheelchair drive wheels, power seat control modules, light control modules for controlling wheelchair lights, or environmental control modules for controlling devices or accessories external to the wheelchair;

a digital communications bus connecting the one or more modules;

a programmable digital microprocessor and a memory connected to the digital communications bus, the memory having control software that may be custom-configured for programmably controlling the operation of the one or modules for a specific user to match the user's individual needs and capabilities;

a user input connected to the digital communications bus, the user input being operable to produce a command for controlling operation of the one or more modules based on the programming of the software and the operation of the input;

a display connected to the digital communications bus; and

a customizable menu structure viewable on the display, the menu structure may be navigated through via the user input, the menu structure having at least one menu selection item that may be arranged in the menu structure according to unique preferences of the user.